Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A piezoelectric/electrostrictive film type actuator ~~which comprises~~comprising:

a ceramic substrate comprising a plurality of laminated thin plate layers and having a cavity formed in an internal portion thereof; and

a piezoelectric/electrostrictive device disposed on ~~the~~ one surface of said ceramic substrate and including a plurality of piezoelectric/electrostrictive ~~film~~ films and electrode ~~film~~films; ~~and which is driven by displacement of the piezoelectric/electrostrictive device,~~

~~characterized in that the piezoelectric/electrostrictive device~~ wherein ~~the~~ said piezoelectric/electrostrictive ~~film~~ films and said electrode ~~film~~films are alternately laminated ~~to form~~such that ~~the~~ electrode ~~film from an~~ films form uppermost ~~layer~~ and ~~a~~ lowermost ~~layer~~layers of said piezoelectric/electrostrictive device ~~possesses a plurality of layers of piezoelectric/electrostrictive films.~~; and

wherein said actuator is driven by displacement of said piezoelectric/electrostrictive device such that said cavity is pressurized by deforming a part of a wall thereof with said piezoelectric/electrostrictive device.

2. (Currently Amended) The piezoelectric/electrostrictive film type actuator according to claim 1, wherein ~~the~~ said piezoelectric/electrostrictive device ~~possesses~~ includes two to four layers of said piezoelectric/electrostrictive films.

3. (Currently Amended) A piezoelectric/electrostrictive film type actuator comprising:

a ceramic substrate; and

a piezoelectric/electrostrictive device disposed on said ceramic substrate and

including a plurality of piezoelectric/electrostrictive films and electrode films;

wherein said piezoelectric/electrostrictive films and said electrode films are alternately laminated such that electrode films form uppermost and lowermost layers of said piezoelectric/electrostrictive device; ~~The piezoelectric/electrostrictive film type actuator according to claim 1,~~

wherein a thickness t_n of an n-th piezoelectric/electrostrictive film from the bottom ~~in the~~ of said piezoelectric/electrostrictive device satisfies the following equation: $t_n \leq t_{n-1} \times 0.95$; and

wherein said actuator is driven by displacement of said piezoelectric/electrostrictive device.

4. (Currently Amended) The piezoelectric/electrostrictive film type actuator according to claim 1, wherein a per layer thickness ~~per layer~~ of ~~the~~ said piezoelectric/electrostrictive ~~film~~films is 30 μm or less.

5. (Currently Amended) The piezoelectric/electrostrictive film type actuator according to claim 1, wherein at least one layer of ~~the~~ said piezoelectric/electrostrictive films is formed by ~~an~~ electrophoresis deposition ~~method~~.

6. (Currently Amended) The piezoelectric/electrostrictive film type actuator according to claim 1, ~~wherein~~ comprising two or more of said piezoelectric/electrostrictive devices ~~are arranged~~ disposed on ~~the~~ said ~~same~~ ceramic substrate.

7. (Cancelled).

8. (Currently Amended) The piezoelectric/electrostrictive film type actuator according to claim ~~7~~1, wherein ~~the~~ said ceramic substrate ~~is constituted of~~comprises two or three laminated thin plate layers ~~of thin plates~~.

9. (Currently Amended) The piezoelectric/electrostrictive film type actuator according to claim ~~7~~1, wherein a thickness of a thinner portion of ~~the~~ said ceramic substrate is 50 μm or less.

10. (Currently Amended) The piezoelectric/electrostrictive film type actuator according to claim 1, wherein ~~the~~ said ceramic substrate ~~is formed of~~comprises a material selected from the group consisting of materials containing ~~any of~~ zirconium oxide, aluminum oxide, magnesium oxide, aluminum nitride, and silicon nitride as a major component.

11. (Currently Amended) The piezoelectric/electrostrictive film type actuator according to claim 1, wherein ~~the~~ said ceramic substrate ~~is formed of~~comprises a material containing either partially stabilized zirconium oxide or completely stabilized zirconium oxide ~~which is~~as a major component.

12. (Currently Amended) An ink pump of a printer head disposed in an ink jet printer ~~The~~ comprising the piezoelectric/electrostrictive film type actuator according to claim 1~~, which is used as an ink pump of a printer head disposed in an ink jet printer~~.

13. (Currently Amended) A piezoelectric/electrostrictive film type actuator ~~which comprises~~comprising:

a ceramic substrate having a cavity formed in an internal portion thereof; and

a piezoelectric/electrostrictive device disposed on ~~the~~ one surface of said ceramic substrate and including a plurality of piezoelectric/electrostrictive ~~film~~films and electrode ~~film~~films~~, ;and said substrate being provided with a cavity being formed in an internal portion thereof and~~

wherein said cavity ~~being~~ is pressurized by deforming a part of a wall ~~of the cavity~~ thereof with ~~the~~ said piezoelectric/electrostrictive device~~,~~; and

~~characterized in that the~~ wherein said piezoelectric/electrostrictive film type actuator is formed ~~prepared~~ by a method comprising the steps of:

preparing a green sheet laminate including at least one green sheet ~~which is~~as a substrate and one or ~~a plurality of~~more green sheets ~~in which~~each having at least one hole portion ~~is~~ formed therein; ~~and~~

sintering ~~the~~ said green sheet laminate to obtain a ceramic laminate;

forming an electrode film (A) ~~in the~~ on an outer surface of ~~the obtained~~said ceramic laminate by a first film forming method;

~~thereafter~~ forming a piezoelectric/electrostrictive film (A) on ~~the~~ said electrode film (A) by a second film forming method~~,~~; ~~further~~

forming an electrode film (B) on ~~the~~ said piezoelectric/electrostrictive film (A) by ~~the~~ said first film forming method~~, and~~;

repeating the steps of forming ~~of the~~said piezoelectric/electrostrictive film (A) and electrode film (B) ~~once or a plurality of~~one or more times;

~~thereafter~~ forming a piezoelectric/electrostrictive film (B) on ~~the~~ said electrode film (B) by ~~the~~ said second film forming method~~,~~;~~and further~~

forming an electrode film (C) on ~~the~~ said piezoelectric/electrostrictive film (B) by ~~the~~ said first film forming method; and

sintering ~~the~~ said piezoelectric/electrostrictive ~~film~~films and/or ~~the~~ said electrode ~~film~~films a predetermined number of times at ~~an~~ arbitrary ~~timing~~ times ~~during a period after~~ between ~~the~~ said step of forming said electrode film (A) ~~is formed until~~ and said step of forming ~~the~~ said electrode film (C) ~~is formed~~.

14. (Currently Amended) A piezoelectric/electrostrictive film type actuator comprising:

a ceramic substrate having a cavity formed in an internal portion thereof; and

a piezoelectric/electrostrictive device disposed on said ceramic substrate and including a plurality of piezoelectric/electrostrictive films and electrode films;

wherein said cavity is pressurized by deforming a part of a wall thereof with said piezoelectric/electrostrictive device; and

wherein said piezoelectric/electrostrictive film type actuator is formed by a method comprising the steps of:

preparing a green sheet laminate including at least one green sheet as a substrate and one or more green sheets each having at least one hole portion formed therein;

sintering said green sheet laminate to obtain a ceramic laminate;

forming an electrode film (A) on an outer surface of said ceramic laminate by a first film forming method;

forming a piezoelectric/electrostrictive film (A) on said electrode film (A) by a second film forming method;

forming an electrode film (B) on said piezoelectric/electrostrictive film (A) by said first film forming method;

repeating the steps of forming said piezoelectric/electrostrictive film (A) and electrode film (B) one or more times;

forming a piezoelectric/electrostrictive film (B) on said electrode film (B) by said second film forming method;

forming an electrode film (C) on said piezoelectric/electrostrictive film (B) by said first film forming method; and

sintering said piezoelectric/electrostrictive films and/or said electrode films a predetermined number of times at arbitrary times between said step of forming said electrode film (A) and said step of forming said electrode film (C);~~The piezoelectric/electrostrictive film type actuator according to claim 13,~~

wherein a thickness t_n of ~~the~~ an n-th piezoelectric/electrostrictive film ~~formed n-th time~~ satisfies the following equation: $t_n \leq t_{n-1} \times 0.95$.

15. (Currently Amended) The piezoelectric/electrostrictive film type actuator according to claim 13, wherein ~~in the steps~~said step of forming said electrode film (B) ~~and~~ includes sintering ~~the~~ said electrode film (B) at a sintering temperature of Tm1 (°C), and wherein said step of forming said piezoelectric/electrostrictive film (B) ~~and~~ includes sintering ~~the~~ said piezoelectric/ electrostrictive film (B) at a sintering

temperature of Tm2 (°C), such that the following equation is satisfied:
$0 \leq Tm2 - Tm1 \leq 300$.

16. (Currently Amended) The piezoelectric/electrostrictive film type actuator according to claim 13, wherein ~~the~~ said first and said second film forming methods each comprise at least one of ~~piezoelectric/electrostrictive film and electrode film are subjected to~~ a plurality of film forming methods ~~per layer and~~, such that each of said electrode films and each of said piezoelectric/electrostrictive films are formed by the same or a different film forming method.

17. (Currently Amended) The piezoelectric/electrostrictive film type actuator according to claim 13, wherein ~~as the~~said first and said second film forming ~~method~~methods each comprise~~,~~ at least one thick film forming method selected from ~~a~~ the group consisting of ~~a~~ screen printing ~~method~~, dipping ~~method~~, coating ~~method~~, and electrophoresis deposition ~~method is used~~.

18. (Currently Amended) The piezoelectric/electrostrictive film type actuator according to claim 13, wherein ~~as the~~said second film forming method ~~of the piezoelectric/electrostrictive film,~~comprises ~~the~~ screen printing ~~method is used~~to form a first piezoelectric/electrostrictive film~~time~~, and ~~the~~ electrophoresis deposition ~~method is used~~to form second and subsequent piezoelectric/electrostrictive films~~times~~.

19. (Currently Amended) The piezoelectric/electrostrictive film type actuator according to claim 13, wherein said step of forming said green sheet laminate comprises laminating two or three green sheets ~~in~~ each ~~of which~~having at least one hole portion ~~is~~ formed ~~are laminated~~therein.

20. (Currently Amended) An ink pump of a printer head disposed in an ink jet printer comprising the~~The~~ piezoelectric/electrostrictive film type actuator according to claim 13~~, which is used as an ink pump of a printer head disposed in an ink jet printer~~.

21. (Currently Amended) A ~~manufacturing~~ method of manufacturing a piezoelectric/electrostrictive film type actuator ~~which comprises~~ comprising a ceramic substrate having a cavity formed in an internal portion thereof, and a piezoelectric/ electrostrictive device disposed on ~~the~~ one surface of said ceramic substrate and including a plurality of piezoelectric/electrostrictive ~~film~~films and electrode ~~film~~films, ~~and said substrate being provided with a cavity being formed in an internal portion thereof and~~ wherein said cavity ~~being~~ is pressurized by deforming a part of a wall thereof ~~the cavity~~ with ~~the~~ said piezoelectric/electrostrictive device,

~~characterized in that the~~ said method ~~comprises~~comprising the steps of:

~~A)~~ ~~a step A of~~ preparing a green sheet laminate including at least one green sheet ~~which is~~as a substrate and at least one green sheet ~~in which~~having at least one hole portion formed therein ~~is formed~~ and sintering ~~the~~ said green sheet laminate to obtain a ceramic laminate;

~~B)~~ ~~a step B of~~ forming an electrode film (A) ~~in~~ on ~~the~~ an outer surface of ~~the~~ said ~~obtained~~ ceramic laminate by a first film forming method;

~~C)~~ ~~a step C of~~ forming a piezoelectric/electrostrictive film (A) on ~~the~~ said electrode film (A) by ~~the~~ a second film forming method; ~~and~~

~~D)~~ ~~a step D of further~~ forming an electrode film (B) on ~~the~~ said piezoelectric/ electrostrictive film (A) by ~~the~~ said first film forming method ~~to~~;

~~E)~~ repeating ~~the~~ steps C and D ~~once or a plurality of~~one or more times; ~~and~~

~~F)~~ ~~a step E of thereafter~~ forming a piezoelectric/ electrostrictive film (B) on ~~the~~ said electrode film (B) by ~~the~~ said second film forming method; and

~~G)~~ ~~and further a step F of~~ forming an electrode film (C) on ~~the~~ said piezoelectric/ electrostrictive film (B) by ~~the~~ said first film forming method;

wherein ~~sintering of the~~said piezoelectric/electrostrictive ~~film~~films

and/or ~~the~~ said electrode ~~film~~films ~~is performed~~are sintered a predetermined number of times at ~~an~~ arbitrary ~~timing during a period~~times between ~~after the~~said electrode film (A) is formed in step B ~~until the~~and said electrode film (C) is formed in step G.

22. (Currently Amended) ~~The manufacturing method of the piezoelectric/electrostrictive film type actuator according to claim 21,~~ A method of manufacturing a piezoelectric/electrostrictive film type actuator comprising a ceramic substrate having a cavity formed in an internal portion thereof, and a piezoelectric/electrostrictive device disposed on said ceramic substrate and including a plurality of piezoelectric/electrostrictive films and electrode films, wherein said cavity is pressurized by deforming a part of a wall thereof with said piezoelectric/electrostrictive device, said method comprising the steps of:

A) preparing a green sheet laminate including at least one green sheet as a substrate and at least one green sheet having at least one hole portion formed therein and sintering said green sheet laminate to obtain a ceramic laminate;

B) forming an electrode film (A) on an outer surface of said ceramic laminate by a first film forming method;

C) forming a piezoelectric/electrostrictive film (A) on said electrode film (A) by a second film forming method;

D) forming an electrode film (B) on said piezoelectric/electrostrictive film (A) by said first film forming method;

E) repeating steps C and D one or more times;

F) forming a piezoelectric/electrostrictive film (B) on said electrode film (B) by said second film forming method; and

G) forming an electrode film (C) on said piezoelectric/electrostrictive film (B) by said first film forming method;

wherein said piezoelectric/electrostrictive films and/or said electrode films are sintered a predetermined number of times at arbitrary times between

said electrode film (A) is formed in step B and said electrode film (C) is formed in step G; and

wherein a thickness t_n of ~~the~~ an n-th piezoelectric/ electrostrictive film ~~formed n-th time~~ satisfies the following equation: $t_n \leq t_{n-1} \times 0.95$.

23. (Currently Amended) The ~~manufacturing~~ method ~~of the piezoelectric/ electrostrictive film type actuator~~ according to claim 21, wherein ~~in the steps of forming and~~said step D includes sintering ~~the~~ said electrode film (B) at a sintering temperature of Tm1 (°C), and wherein said step F ~~and forming and~~ includes sintering ~~the~~ said piezoelectric/electrostrictive film (B) at a sintering temperature of Tm2 (°C), such that the following equation is satisfied: $0 \leq Tm2 - Tm1 \leq 300$.

24. (Currently Amended) The ~~manufacturing~~ method ~~of the piezoelectric/ electrostrictive film type actuator~~ according to claim 21, ~~further comprising the steps of: subjecting the~~wherein said first film and said second forming methods each comprise at least one of a plurality of film forming methods such that each of said electrode films and each of said piezoelectric/electrostrictive ~~film and electrode film to~~films are ~~a plurality of film forming methods per layer to form the films~~ formed by the same or a different film forming method in the respective steps.

25. (Currently Amended) The ~~manufacturing~~ method ~~of the piezoelectric/ electrostrictive film type actuator~~ according to claim 21, wherein said first and said second film forming methods each comprise at least one thick film forming method selected from ~~a~~ the group consisting of ~~a~~ screen printing ~~method~~, dipping ~~method~~, coating ~~method~~, and electrophoresis deposition ~~method is used as the film forming method~~.

26. (Currently Amended) The ~~manufacturing~~ method ~~of the piezoelectric/ electrostrictive film type actuator~~ according to claim 21, wherein ~~as the~~said second film forming method ~~of the piezoelectric/electrostrictive film,~~ comprises ~~the~~ screen

printing ~~method is used~~ to form a first ~~time~~ piezoelectric/electrostrictive film and ~~the~~ electrophoresis deposition ~~method is used~~ to form second and subsequent piezoelectric/electrostrictive films~~times~~.

27. (Currently Amended) The ~~manufacturing~~ method ~~of the piezoelectric/electrostrictive film type actuator~~ according to claim 21, wherein ~~the step A includes a step of preparing~~ each of said at least one ~~or a plurality of~~ laminated green sheets of step A ~~which~~ that form ~~the~~ said substrate ~~and in each of which~~ have at least one hole portion ~~is~~ formed therein.

28. (Currently Amended) The ~~manufacturing~~ method ~~of the piezoelectric/electrostrictive film type actuator~~ according to claim 27, ~~further comprising the steps of:~~ wherein said at least one laminated green sheet~~laminating~~ comprises two or three laminated green sheets ~~in each of which at least one hole portion is formed~~.

29. (Currently Amended) ~~The manufacturing method of the piezoelectric/electrostrictive film type actuator according to claim 21, wherein the actuator is used as an~~ An ink pump of a printer head disposed in an ink jet printer comprising an actuator formed according to the method of claim 21.

30. (New) The method according to claim 16, wherein said first and said second film forming methods are the same.

31. (New) The method according to claim 24, wherein said first and said second film forming methods are the same.